WHAT IS CLAIMED IS:

1. A metal substrate coating device, comprising:

a square transfer apparatus comprising at least two stations, a rack, and a travel system, said travel system operatively connected to said rack and capable of transporting said rack along a travel path between said at least two stations, wherein at least one of said stations includes a dipping tank having an autodepositable coating composition therein.

2. A device according to claim 1, wherein said square transfer apparatus further includes at least one metal pretreatment station.

3. A device according to claim 2, wherein said square transfer apparatus further includes a loading station and an unloading station.

4. A device according to claim 2, wherein said square transfer apparatus includes at least two stations including dipping tanks having autodepositable coating compositions therein.

5. A device according to claim 4, wherein said square transfer apparatus is adapted to remove the substrate from the autodeposition dipping tank at a withdrawal rate which is less than the drainage rate of the autodepositable coating composition.

6. A device according to claim 5, wherein a square transfer apparatus utilizes a dual rate withdrawal wherein the substrate is removed from the autodeposition composition at a first rate of 1.2 to 2.5 cm per second and then at a rate of 0.25 to 1.0 cm per second.

7. A device according to claim 6, wherein the first rate of withdrawal is performed for a duration of from 55 to 95 percent of total withdrawal time and wherein the second rate of withdrawal is practiced during 5 to 45 percent of the total withdrawal time.

8. A device according to claim 3, wherein at least two metal pretreatment stations are utilized in the step transfer apparatus comprising an alkaline bath treating station and an acid pickle treating station.

9. A device according to claim 8, wherein the square transfer apparatus further includes a rinsing station after each metal pretreatment station.

10. A device according to claim 9, wherein a drying station is present in the step transfer apparatus after the first autodeposition coating station.

11. A device according to claim 10, wherein the first autodepositable coating composition includes a metal treatment composition, or a one coat adhesive composition, and wherein the apparatus includes at least a second autodeposition coating station with a second autodepositable coating composition comprising a primer composition or an overcoat adhesive composition.

12. A device according to claim 3, wherein the square transfer apparatus includes stations which form a continuous loop, wherein a rack is present at each said station with the racks moving in unison according to a predetermined unit cycle time from one station to the subsequent station, and wherein the unit cycle time ranges from 30 to 180 seconds.

13. A method for coating a metal substrate utilizing a step transfer apparatus, comprising the steps of:

transferring a metal substrate along a travel path utilizing a travel system of the square transfer apparatus from a prior station to an autodeposition coating station;

dipping the substrate in an autodepositable coating composition located in a tank at the autodeposition coating station; and

withdrawing the coated substrate from the autodepositable composition after a predetermined period of time which is less than a unit cycle time of the step transfer apparatus.

14. A method according to claim 13, further including the step of treating the substrate with a pretreatment solution at a pretreatment station located on the travel path before the autodeposition coating station.

15. A method according to claim 14, wherein the substrate is withdrawn from the autodepositable coating composition at a rate which is less than the drainage rate of the autodepositable coating composition.

16. A method according to claim 14, wherein the coated substrate is withdrawn at a dual rate of withdrawal wherein the substrate is removed from the autodeposition composition at a first rate of 1.2 to 2.5 cm per second and then at a rate of 0.25 to 1.0 cm per second.

17. A method according to claim 14, further including the steps of treating the substrate at at least two pretreatment stations including an alkaline bath treating station and an acid pickle treating station.

18. A method according to claim 13, further including the steps of transferring the substrate to a dehydration station after the autodepositable coating has been applied thereto, and dehydrating the coated substrate at the dehydration station.

19. A method according to claim 18, further including the steps of transferring the coated metal substrate from the dehydration station to a second autodeposition coating station, dipping the substrate in a second autodepositable coating composition located in a tank at the second autodeposition coating station, and withdrawing the coated substrate from the second autodepositable coating composition after a predetermined period of time which is less than a unit cycle time of the step transfer apparatus.

20. A method according to claim 19, further including the steps of transferring the coated metal substrate from the second autodeposition station to a second dehydration station and dehydrating the coated metal substrate.

21. A method according to claim 20, further including the step of curing the coated substrate at a station subsequent to the second dehydration station.

22. A method according to claim 13, wherein the autodepositable coating composition is a metal treatment composition, or a one coat adhesive composition.

23. A method according to claim 17, wherein the first autodepositable coating composition includes a metal treatment composition, or a one coat adhesive composition, and wherein the second autodepositable coating composition includes a primer composition or an overcoat adhesive composition.

24. A method according to claim 13, wherein the travel system comprises a carriage and rail, or a reciprocal carriage.

25. A method according to claim 23, wherein the travel system comprises a carriage and rail, or a reciprocal carriage.

26. An autodeposition coating process for forming a coating on an electrochemically active metal substrate, comprising the steps of:

providing a square transfer apparatus having a travel system capable of conveying the metal substrate between two or more stations;

performing a metal pretreatment step on the metal substrate at one station; and

applying an autodepositable coating on the metal substrate at a subsequent station.

27. A coating process according to claim 26, wherein the coating step and metal pretreatment step are each performed within a predetermined unit cycle time.

28. A coating process according to claim 27, wherein two metal pretreatment steps are performed on the metal substrate sequentially including an alkaline treatment and an acid pickle treatment.

29. A coating process according to claim 28, wherein the substrate is rinsed at a rinsing station after each metal pretreatment step is performed.

30. A coating process according to claim 29, wherein the metal substrate having an autodeposited coating thereon is transferred to a dehydration station.

31. A coating process according to claim 30, wherein a second autodepositable coating is applied to the metal substrate after the dehydration station.

32. A coating process according to claim 31, wherein the substrate is transferred to a second dehydration station after the second autodepositable coating has been applied.

33. A coating process according to claim 31, wherein the substrate is withdrawn from the autodepositable coating compositions at a rate which is less than the drainage rate of the autodepositable coating compositions.

34. A coating process according to claim 33, wherein the coated substrate is withdrawn at a dual rate of withdrawal wherein the substrate is removed from the autodeposition composition at a first rate of 1.2 to 2.5 cm per second and then at a rate of 0.25 to 1.0 cm per second.